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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-58. Cancelled.

59. (Currently Amended) ~~The method according to Claim 58, wherein the atomized fluid particles have A method, comprising the following:~~

a user control accepting a user input which specifies a cutting efficiency;  
supplying air and water through lines operated under relatively high and low pressures,  
respectively, for mixing and outputting by an atomizer of atomized fluid particles having  
sizes narrowly distributed about a mean value into an interaction zone defined as a volume  
above the target;

focusing or placing a peak concentration of electromagnetic energy onto at least a portion  
of the atomized fluid particles in the interaction zone, the electromagnetic energy having a  
wavelength which is substantially absorbed by the portion of atomized fluid particles in the  
interaction zone; and

the portion of atomized fluid particles in the interaction zone highly absorbing the  
electromagnetic energy, expanding, and imparting disruptive forces onto the target.

60. (Currently Amended) The method as set forth in Claim 5359, wherein the electromagnetic energy source comprises one of a wavelength within a range from about 2.69 to about 2.80 microns and a wavelength of about 2.94 microns.

61. (Currently Amended) The method as set forth in Claim 5359, wherein the laser comprises one of an Er:YAG, an Er:YSGG, an Er,Cr:YSGG and a CTE:YAG laser.

62-64. Cancelled.

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65. (Currently Amended) The method as set forth in Claim 6259, wherein the target comprises one of tooth, bone, cartilage and soft tissue.

66. Cancelled.

67. (Currently Amended) The method as set forth in Claim 6259, wherein the electromagnetic energy is generated by one of an Er, Cr:YSGG solid state laser having a wavelength of about 2.789 microns and an Er:YAG solid state laser having a wavelength of about 2.940 microns.

68. (Currently Amended) The method as set forth in Claim 6259, wherein the electromagnetic energy is highly absorbed by at least a portion of the atomized fluid particles to cause at least part of the portion of atomized fluid particles to expand and impart disruptive mechanical forces to the target.

69. (Previously Added) A method, comprising:  
focusing or placing a peak concentration of electromagnetic energy into an interaction zone above a target;  
outputting atomized fluid particles from a plurality of atomizers into the interaction zone; and  
at least a portion of the atomized fluid particles in the interaction zone highly absorbing at least a portion of the electromagnetic energy, expanding, and imparting disruptive forces onto the target.

70. (Previously Added) The method as set forth in claim 69, wherein the focusing or placing of a peak concentration of electromagnetic energy into an interaction zone comprises focusing or placing a peak concentration of electromagnetic energy into an interaction zone located at an output end of a fiber guide tube.

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71. (Currently Amended) The method as set forth in claim 70, wherein:  
the outputting of atomized fluid particles from a plurality of atomizers comprises  
outputting atomized fluid particles from the aplurality of atomizers toward the output end of  
the fiber guide tube; and  
atomized fluid particles from a first one of the plurality of atomizers combine with  
atomized fluid particles from a second one of the plurality of atomizers in the interaction  
zone.
72. (Currently Amended) The method as set forth in claim 70, wherein:  
the outputting of atomized fluid particles from a plurality of atomizers comprises  
outputting atomized fluid particles from the aplurality of atomizers toward the output end of  
the fiber guide tube; and  
an angle of incidence of atomized fluid particles from a first one of the plurality of  
atomizers is different from an angle of incidence of atomized fluid particles from a second  
one of the plurality of atomizers.
73. (Previously Added) The method as set forth in claim 72, wherein the fiber guide  
tube is disposed between the first atomizer and the second atomizer.
74. (Currently Amended) The method as set forth in claim 72, wherein:  
each of the plurality of atomizers has an output axis; and  
the output axes all point from the respective atomizers to a general vicinity of the  
interaction zone.
75. (Previously Added) The method as set forth in claim 74, wherein the output axes  
intersect a longitudinal axis of the fiber guide within the interaction zone.
76. (Previously Added) The method as set forth in claim 69, wherein atomized fluid

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particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers in the interaction zone.

77. (Previously Added) The method as set forth in claim 69, wherein an output axis of a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers.

78. (Currently Amended) The method as set forth in claim 69, wherein:  
each of the plurality of atomizers has an output axis; and  
the output axes all point from the respective atomizers to a general vicinity of the interaction zone.

79. (Previously Added) The method as set forth in claim 78, wherein:  
the electromagnetic energy is directed along a path toward the target surface; and  
the output axes intersect the path within the interaction zone.

80. (Previously Added) The method according to Claim 69, wherein the step of outputting atomized fluid particles from a plurality of atomizers includes a step of outputting atomized fluid particles from atomizers that are connected to air supply and water supply lines, wherein air and water are mixed by the atomizers to form the atomized fluid particles.

81. (Previously Added) The method according to Claim 80, wherein each air supply line is operated under a relatively high pressure and each water supply line is operated under a relatively low pressure.

82. (Previously Added) The method according to Claim 69, wherein the atomized fluid particles have sizes narrowly distributed about a mean value.

83. (Previously Added) The method as set forth in Claim 69, wherein the

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electromagnetic energy has one of a wavelength within a range from about 2.69 to about 2.80 microns and a wavelength of about 2.94 microns.

84. (Previously Added) The method as set forth in Claim 69, wherein the electromagnetic energy is generated by one of an Er:YAG, an Er:YSGG, an Er,Cr:YSGG and a CTE:YAG laser.

85. (Previously Added) The method as set forth in Claim 69, wherein the target surface comprises one of tooth, bone, cartilage and soft tissue.

86. (Previously Added) The method as set forth in Claim 69, wherein the atomized fluid particles comprise water.

87. (Previously Added) The method as set forth in Claim 69, wherein the electromagnetic energy is generated by one of an Er, Cr:YSGG solid state laser having a wavelength of about 2.789 microns and an Er:YAG solid state laser having a wavelength of about 2.940 microns.

88. (Previously Added) The method as set forth in Claim 69, wherein the electromagnetic energy is highly absorbed by at least a portion of the atomized fluid particles to cause at least part of the portion of atomized fluid particles to expand and impart disruptive mechanical forces to the target surface.

89. (Previously Added) The method as set forth in Claim 69, wherein the atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone.

90. (Currently Amended) The method according to Claim 53, wherein the user control includes a dial for controlling a ~~repetition~~ repetition rate of the electromagnetic

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energy.

91. (Previously Added) The method according to Claim 53, wherein the user control includes a dial for controlling an average power of the electromagnetic energy.

92. (Previously Added) The method as set forth in claim 69, wherein the plurality of atomizers is two atomizers.

93. (Previously Added) The method as set forth in claim 74, wherein the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone.

94. (Previously Added) The method as set forth in claim 78, wherein: the electromagnetic energy is directed along a path toward the target surface; and the output axes intersect in a general vicinity of the path near or in the interaction zone.